AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for improving reliability and availability of a load balanced server comprising the steps of:

monitoring the server's performance,

wherein monitoring comprises measuring one or more parameters selected from the group consisting of a currently available number of threads, a maximum number of available threads, memory usage percentage, and a number of processes running;

detecting when the server's performance is worse than a failover threshold; and

sending a message to one or more clients indicating that said one or more clients should failover to an alternate server.

2. (original) The method of Claim 1, wherein the server is an AAA server and the one or more clients are AAA clients.

3. (original) The method of Claim 1, wherein the step of sending a message comprises sending an ICMP Echo message.

4. (canceled) ~~The method of Claim 1, wherein the step of monitoring the server's performance comprises measuring one or more parameters from the group consisting of server related parameters, system related parameters, and availability of services on the server.~~

5. (canceled) ~~The method of Claim 4, wherein the server related parameters comprise a currently available number of threads and a maximum number of available threads~~.

6. (canceled) ~~The method of Claim 4, wherein the system related parameters comprise CPU usage percentage, memory usage percentage, network availability, and number of processes running~~.

7. (currently amended) The method of Claim [[4]] 1, wherein the step of monitoring further comprises measuring availability of services, wherein the services of which the availability is checked on the server comprise mandatory services and ~~dependant~~ dependent services.

8. (original) The method of Claim 1, further comprising the step of determining the one or more clients to which to send the message based on a predefined list of clients.

9. (original) The method of Claim 1, further comprising the step of determining the one or more clients to which to send the message based on a network device group.

10. (original) The method of Claim 1, further comprising the step of determining the one or more clients to which to send the message based on network topology.

11. (original) The method of Claim 1, further comprising the step of determining the alternate server based on a list configured on each of said one or more clients.

12. (original) The method of Claim 1, wherein the message that is sent to said one or more clients comprises a list of one or more alternate servers to which said one or more clients can failover.

13. (original) The method of Claim 1, further comprising the step of checking authority of a message sent between a sender and a receiver by comparing a first hashed value, produced by the sender and sent with the message, with a second hashed value produced by the receiver.

14. (original) The method of Claim 13, further comprising the step of producing the first hashed value and the second hashed value using a one-way hash algorithm with a shared secret as a key and a combination of the server's IP address and the client's IP address as input.

15. (original) The method of Claim 13, further comprising the step of producing the first hashed value and the second hashed value using a one-way hash algorithm with a

combination of a shared secret, the server's IP address, and the client's IP address as input.

16. (original) The method of Claim 1, further comprising the step of connecting with a second client.

17. (original) The method of Claim 16, further comprising the step of initiating the step of connecting based on a request from the second client.

18. (original) The method of Claim 17, further comprising the step of initiating the step of connecting based on a timeout mechanism configured on the second client.

19. (original) The method of Claim 16, further comprising the step of initiating the step of connecting based on a request by the server.

20. (original) The method of Claim 19, further comprising the step of initiating the step of connecting based on the server's performance being better than a connection threshold.

21. (currently amended) The method of Claim 20, wherein the step of initiating comprises the step of comparing the connection threshold with a function relating one or more parameters selected from the group consisting of server related parameters, system related parameters, and availability of services on the server.

22. (original) The method of Claim 21, wherein the server related parameters comprise a currently available number of threads and a maximum number of available threads.

23. (original) The method of Claim 21, wherein the system related parameters comprise CPU usage percentage, memory usage percentage, and number of processes running.

24. (original) The method of Claim 21, wherein the services of which the availability is checked on the server comprise services mandatory for correct functioning of the server and services needed for logging on the server.

25. (original) The method of Claim 16, wherein said one or more clients comprise multiple clients, the method further comprises the steps of:

connecting a first set of one or more clients at a first time, wherein said first set of one or more clients comprises one or more clients from said multiple clients; and

connecting a second set of one or more clients at a second time, wherein said first time is different than said second time, and said second set of one or more clients comprises one or more clients from said multiple clients.

26. (original) The method of Claim 1, wherein said one or more clients comprise all clients connected to said server.

27. (original) The method of Claim 1, wherein said one or more clients comprise a proper subset of all clients connected to said server.

28. (original) The method of Claim 1, further comprising the steps of:

disconnecting a first set of one or more clients, wherein said first set of one or more clients comprise one or more clients from said one or more clients; and

connecting a second set of one or more clients, wherein the second set of one or more clients comprise one or more clients from said first set of one or more clients.

29. (original) The method of Claim 28, wherein the step of connecting comprises the steps of:

connecting each client of said second set of one or more clients at a different time; and

initiating the step of connecting each client based on a timeout mechanism configured on each client.

30. (currently amended) The method of Claim 28, further comprising the step of initiating the step of connecting based on the server's performance being better than a connection threshold, wherein the server's performance is measured as a function relating one or

more parameters selected from the group consisting of server related parameters, system related parameters, and availability of services on the server.

31. (original) The method of Claim 28, wherein said second set of one or more clients comprises multiple clients, and the step of connecting a second set of one or more clients comprises the steps of:

connecting a third set of one or more clients at a first time, wherein said third set of one or more clients comprises one or more clients from said multiple clients; and

connecting a fourth set of one or more clients at a second time, wherein said first time is different than said second time, and said second set of one or more clients comprises one or more clients from said multiple clients.

32. (original) The method of Claim 28, wherein said second set of one or more clients comprises all of said one or more clients.

33. (currently amended) A computer-readable medium carrying one or more sequences of instructions for improving reliability and availability of a load balanced server, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

monitoring the server's performance,

wherein monitoring comprises measuring one or more parameters selected from the group consisting of a currently available number of threads, a maximum number of available threads, memory usage percentage, and a number of processes running;

detecting when the server's performance is worse than a failover threshold; and

sending a message to one or more clients indicating that said one or more clients should failover to an alternate server.

34. (currently amended) An apparatus for improving reliability and availability of a load balanced server, comprising:

means for monitoring the server's performance,

wherein monitoring comprises measuring one or more parameters selected from the group consisting of a currently available number of threads, a maximum number of available threads, memory usage percentage, and a number of processes running;

means for detecting when the server's performance is worse than a failover threshold; and

means for sending a message to one or more clients indicating that said one or more clients should failover to an alternate server.

35. (currently amended) An apparatus for improving reliability and availability of a load balanced server, comprising:

a network interface that is coupled to the data network for receiving one or more packet flows therefrom;

a processor;

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of:

monitoring the server's performance,

wherein monitoring comprises measuring one or more parameters selected from the group consisting of a currently available number of threads, a maximum number of available threads, memory usage percentage, and number of processes running;

detecting when the server's performance is worse than a failover threshold; and

sending a message to one or more clients indicating that said one or more clients should failover to an alternate server.